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Applicant(s):	KASMIRSKY, Yehoshapat, et al.	Examiner:	LE, Thu, N.T.
Serial No.:	10/766,851	Group Art Unit:	2162
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Title:	**CONTENT-BASED STORAGE MANAGEMENT**		

APPEAL BRIEF

Mail Stop **Appeal Brief – Patents**
Board of Patent Appeals and Interferences
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I. Real party in interest

The real party in interest is NICE Systems Ltd., a corporation organized under the laws of the country of Israel.

II. Related appeals and interferences

There are no related appeals and interferences.

III. Status of claims

Claims 1-3, 5, 6, 8-12, 15-29, 34-39, and 43-60 are pending in the application.

All claims have been rejected.

All claims are being appealed.

IV. Status of amendments

No amendments have been made subsequent to final rejection.

V. Summary of claimed subject matter

Storage facilities for digital information are a critical resource. The demand for storage space for both conventional data, such as text documents and other human readable files, and multimedia streams, such as audio and/or video data, has increased significantly for a number of reasons, including legal requirements to store and maintain certain types of information, and an increase in the different types of data which are being stored. This increased demand has in turn resulted in a higher demand for storage space, including on-line (e.g., direct-access, permanently mounted) storage. As the demand for on-line storage space increases, a number of options are possible to fulfill that demand. While additional hardware, such as magnetic media devices ("hard disk drives"), may be purchased to increase the available storage, as the quantity of such hardware devices increases, the management problem for electronic management of these devices also increases.

The disclosure of the present application generally relates to a system and method for automatic data management, for example, management of security and/or customer management audio/video data, according to the content of the data. Embodiments of the invention enable data to be stored automatically in one of a plurality of different storage options according to at least one characteristic of the data, where the at least one characteristic is based on an analysis of the content of the data.

The present invention provides a system and a method for data management according to the content of the data. In particular, the system and method of the present invention provide for automatic analysis of the content of data, e.g., video content data, selection of a suitable one of a plurality of storage options for the data based on the characteristic, and storage of the data on the selected storage option. This enables data to be stored in any one of a plurality of different storage options, having different capacity, accessibility and reliability to the user. Thus, data content determines the characteristic, on

which the indexing metadata is based, on which the storage selection is ultimately made. Schematically, this may be depicted as a chain of functions, where the outcome of each step is determined based on the previous step:

data content → characteristic → content metadata → storage selection → data storage

Pending Claim 1

A. Claims 1, 27, and 43

The method of claim 1 is explained throughout the specification, and in particular, in connection with the flowchart of Fig. 5 depicting a method for managing data storage. Initially, a stream of audio or video data related to a communication over a communication network is received (para. [0071], block 501). Then, the content of the audio or video data is automatically analyzed to determine at least one characteristic of the audio or video content of the received stream (para. [0071], block 504). Next, based on the content analysis of the audio or video data, metadata associated with the at least one characteristic is generated (para. [0071], block 504). According to the generated metadata pertaining to the at least one characteristic, and according to at least one rule, one of a plurality of storage options having different types of accessibility and/or capacity is selected (para. [0072], blocks 506, 507). Finally, the data is placed into the selected storage option (para. [0072], block 508).

The systems of claims 27 and 43 are explained throughout the specification, and in particular, in connection with the system diagram of Fig. 1. The system (10) includes an input source (12) to deliver a stream of audio or video data related to a communication over a communication network; an analysis module (18) for analyzing the content of the data to determine at least one characteristic of the audio or video content of the delivered data stream and to generate based on the content analysis of the audio or video data metadata associated with the at least one characteristic; a rule engine (20) to compare at least a portion of the generated metadata to at least one rule and to select one of a plurality of storage options based on the comparison; a storage manager (22) for receiving a decision related to the selected storage option from the rule engine; and a plurality of storage devices (26) having

different types of accessibility and/or capacity, wherein the storage manager stores the data in one of the plurality of storage devices according to the decision.

B. Claims 47, 51, and 55

Claim 47 further recites that the step of automatically analyzing the content of the video data comprises analyzing the content of at least one frame of said received stream of video data. Claims 51 and 55 recite systems for data management, wherein the analysis module is to analyze the content of the video data by analyzing the content of at least one frame of said delivered stream of video data (e.g., Fig. 3, block 76). An explanation of these claims may be found, for example, at paragraph [0052] of the application:

> [0052] Video analysis may optionally be performed by video analyzer 76 as follows. Video data is obtained, for example from a camera as a non-limiting example of video source 54. A frame-grabber is then preferably used to obtain at least one frame from the video data. The frame is preferably analyzed. . .

C. Claims 48, 52, and 56

Claims 48, 52, and 56 recite that the characteristic of the content on which the storage decision is based is human presence, and that analyzing the content of at least one frame comprises determining the presence of a human subject in the frame (e.g., Fig. 3, block 76). An explanation of these claims may be found, for example, at paragraph [0052] of the application:

> [0052] . . . [I]f a video camera is used to monitor the entrance to a secure area, then optionally only those frames, or alternatively those portions of each frame, which feature a human subject near the actual entrance are of interest.

VI. Grounds of rejection to be reviewed on appeal

The Examiner rejected independent claims 1, 27 and 43 under 35 U.S.C. § 103(a), as being unpatentable over US Patent No. 6,542,972 (Ignatius) in view of US Patent Publication No. 2001/0040942 (Glowny). Specifically, with respect to claim 1, the Examiner stated that Ignatius discloses a method for managing data storage, including receiving a stream of data

(col. 1 lines 38-45, col. 5 lines 50-55), automatically analyzing the content of the data to determine a characteristic (Fig. 3, col. 2 lines 34-45, col. 5 lines 4-8), generating metadata associated with the characteristic (Id.), selecting a storage option according to the metadata and according to a rule (col. 1 lines 65-66, col. 2 lines 1-6, 39-45, col. 10 lines 21-22, col. 9 lines 5-20)[1], and placing the data into the selected storage (col. 2 lines 39-45, col. 10 lines 23-25). The Examiner has conceded that the Ignatius reference does not disclose automatically analyzing the content of the audio or video data to determine at least one characteristic, or generating metadata associated with the at least one characteristic based on the content analysis of the audio or video data. For these elements, the Examiner relies on the Glowny reference (para. [0032] lines 8-12), and states that it would have been obvious "to incorporate the method for recording and storing telephone call information into the [] method for managing data storage in order to facilitate monitoring, recording, and playing back complete telephone call . . . One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success."

The Examiner rejected dependent claims 47, 51, and 55 under 35 U.S.C. § 103(a), as being unpatentable over Ignatius in view of Glowny and in further view of US Patent Publication No. 2005/0008198 (Guo). The Examiner concedes that Ignatius and Glowny do not disclose automatic content analysis of video frames. However, the Examiner relies on Guo as allegedly disclosing automatic content analysis of a frame of video data (Guo para. [0017]), and states that it would have been obvious to "incorporate the method for determining a frame of an image sequence into the method for managing data storage to detect the human and identify the frames with the clear faces."

The Examiner rejected dependent claims 48, 52, and 56 under 35 U.S.C. § 103(a), as being unpatentable over Ignatius in view of Glowny and in further view of Guo. The Examiner concedes that Ignatius and Glowny do not disclose automatic content analysis of video frames to detect human presence. However, the Examiner relies on Guo as allegedly disclosing automatic content analysis of a frame of video data to detect human presence in a frame (Guo para. [0017]), and states that it would have been obvious to "incorporate the

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[1] The Examiner has expressly stated that he reads the "at least one characteristic" in claim 1 to be found in the metadata of the Ignatius reference. The circularity of this reading is discussed more fully below.

method for determining a frame of an image sequence into the method for managing data storage to detect the human and identify the frames with the clear faces."

VII. Argument

A. Rejection of claims 1, 27, and 43 over Ignatius and Glowny

The Ignatius reference discloses:

> A computer storage system having a processor that supports operation of at least one software application in order to store selected data in the computer storage system, at least one storage media for storing the selected data, a plurality of storage policies, each having particular storage guidelines, that are available to determine how data is to be stored in the computer storage system, and a storage control that interacts with the at least one software application of the processor to determine which of the plurality of storage policies to use for storage of the selected data and that stores the selected data according to the selected storage policy. . . (Abstract, emphasis added)
>
> The method involves, not necessarily in this order directing a software application to store selected data; examining the selected data for particular characteristics; selecting a particular storage policy that matches the particular characteristics of the selected data; and storing the selected data on a storage media of the computer storage system according to the particular storage policy. (col. 2 lines 38-45, emphasis added)

The Examiner has stated that Ignatius does not disclose manipulating audio or video data in particular. However, Applicants disagree with the Examiner's assertion that Ignatius discloses content analysis **at all**. For this proposition, the Examiner pointed to Fig. 3, and to col. 2 lines 34-45 and col. 5 lines 4-8:

> Still other aspects of the present invention are realized through a method for storing data on one of a plurality of storage media of a computer storage system according to one of a plurality of storage policies that are defined by a user. The method involves, not necessarily in this order directing a software application to store selected data; examining the selected data for particular characteristics; selecting a particular storage policy that matches the particular characteristics of the selected data; and storing the selected data on a

> storage media of the computer storage system according to the particular storage policy. (col. 3 lines 34-45, emphasis added)
>
> * * *
>
> In this embodiment, when the software application is directed to stored data, the data is sent to the installed file system and then the manager module 314 examines the storage policies 316 to determine the appropriate location for storage of the data. (col. 5 lines 4-8)

Based on the above, (and the entire reference), Ignatius does not perform **any** content analysis of the stored data, regardless of its type. The "particular characteristics" of the data being stored, and on which the storage decisions are made, **do not relate to the actual content of the data stored**. The entirety of the Ignatius reference clarifies that the characteristics are metadata, and as such, unrelated to the data content, e.g., the user who created the data, size of the data, etc. In the Summary of the Invention, the Ignatius reference states:

> The initial storage sequence selection criteria are commonly user directed override, user profile, application, file type, user network location, and available storage space or similar criteria. The storage sequence reselection criteria are criteria such as specific file usage history, file type usage history, user profile, user network relocation, available storage space, added storage media, etc. Finally, the storage sequence adaptation criteria are items such as specific file usage history, user profile, user network relocation, available storage space, added storage media, or other suitable criteria that becomes apparent to those of ordinary skill in the art and viewing the present disclosure. (col. 2 lines 3-15, emphasis added)

This limitation of the Ignatius reference is further clarified throughout the document, for example:

> A default initial storage sequence selection is selected for the storage system 100, and the default is comprised of a particular arrangement of factors such as a user directed override 702, a user profile 704, an application 706, a file type 708, a user network location 710, an available storage space 712 . . . (col. 7 lines 44-49, emphasis added)

Specifically, the metadata used in the Ignatius reference for storage decisions is derived from the CTI and therefore it is external metadata, and not derived in any way from analysis of the content of the data. Thus, storage decisions may be made by the Ignatius

methodology based on the above characteristics **without ever opening the data**, i.e., without reference to the content. Therefore, these characteristics are not characteristics of the content, and storage decisions are not made by automatically analyzing the content. Thus, schematically, the Ignatius reference may be depicted the following chain of functions:

external metadata → storage selection → data storage

Ignatius Reference

The Examiner has cited the Glowny reference to teach storage of video or audio data, and allegedly content analysis. Applicants disagree. The Glowny reference discloses:

> A system and method for monitoring a telephone switching environment. In a preferred embodiment the system and method identify telephone call segments that relate to one telephone call and construct a data representation of a lifetime of the telephone call, using data regarding telephony events associated with the telephone call segments of the telephone call. The system and method are also capable of using the data representation to display a graphical representation of a lifetime of a telephone call. (Abstract)

In particular, the Examiner has pointed to paragraph [0032] of the Glowny reference:

> [0032] The present invention is directed to a communication recording system and method. Generally, the functionality of the system involves tapping into activity on a PBX (Private Branch Exchange) by intercepting audio on either the trunk or station side of a telephone call. The tapped audio is then redirected as input to a channel on a Digital Signal Processor (DSP) based voice processing board, which in turn is digitized into program addressable buffers. The recorded digitized audio is then combined with descriptive information ("metadata") obtained through a Computer Telephony Integration (CTI) communications link with the PBX, and stored as a single manageable unit ("Voicedata") to facilitate its subsequent search and retrieval. The system uses modular architecture in both its hardware and software, so that any one component can be replaced or upgraded without affecting the rest of the system.

The Glowny is directed to monitoring and recording of telephone calls in a telephone switching environment. However, as in the Ignatius reference, the metadata manipulated by

the Glowny reference – on which the storage decisions of Ignatius would presumably be made – are not generated by analysis of the data content, but rather, by the CTI metadata, which is extrinsic to the content of the data. Thus, schematically, the Glowny reference may be depicted the following chain of functions:

video/audio data → external metadata

Glowny Reference

Therefore, the combination of the Ignatius and Glowny references would produce the following chain of functions:

voice/audio data → external metadata → storage selection → data storage

Ignatius + Glowny References

In contrast, as discussed above, the present application describes analyzing content of an audio or video stream to obtain characteristics of the audio or video content, and to make storage decisions based on such content analysis. Two video examples disclosed are:

> [0052] Video analysis may optionally be performed by video analyzer 76 as follows. Video data is obtained, for example from a camera as a non-limiting example of video source 54. A frame-grabber is then preferably used to obtain at least one frame from the video data. The frame is preferably analyzed. More preferably, only a portion of the frame is stored as captured data. For example, if a video camera is used to monitor the entrance to a secure area, then optionally only those frames, or alternatively those portions of each frame, which feature a human subject near the actual entrance are of interest. Additionally or alternatively, changes in the background of each frame may optionally be detected and tracked, as being of interest.
>
> [0053] One example of a type of analysis which may be performed with the video data is a motion detection algorithm, which is well known in the art. Another example is face recognition algorithms,

> which are also well known in the art. . . . The results may then optionally be stored as the captured data.

Accordingly, the Ignatius and Glowny references do not disclose every element of claim 1, including "automatically analyzing the content of the audio or video data to determine at least one characteristic of the audio or video content of the received stream" and "generating based on said content analysis of the audio or video data metadata associated with the at least one characteristic" as recited in amended claim 1.

B. Rejection of claims 47, 51, and 55 over Ignatius/Glowny and Guo

Claim 47 recites that analyzing the content of video data comprises analyzing the content of at least one frame of the stream of video data. The Examiner has agreed that neither Ignatius nor Glowny disclose analyzing content of a frame of video data, but rejected the claims based on these references in combination with the Guo reference.

Guo discloses a system for determining a key frame of an image sequence wherein the key frame includes the clearest image of the face of a person from the image sequence, the system included an image input means for receiving the image sequence of the person and a processing means for identifying the face of the person in each frame of the image sequence and then determining which frame is the clearest image of the persons face. (Guo, Abstract). In particular, the intended use of the Guo disclosure is to make storage, search and retrieval of video data more intuitive by indexing a key frame extracted from the data.

> [0024] The system may further include a storage means to enable the key frames to be stored with or without the accompanying video. Ideally compressed video would be included together with other data such as the date and time.
>
> [0025] The system may advantageously by employed in an ATM surveillance system so as to record details of each transaction, together with the key frame and any other relevant data. The ATM surveillance system may be triggered by detection of motion approximate the ATM machine, or alternatively by a user commencing a transaction.

Thus, schematically, the Guo reference may be depicted the following chain of functions:

video data content → index frame → index frame storage

Guo Reference

The Guo reference is therefore directed to content analysis and indexing, whereas the Ignatius reference is directed to data storage based on metadata. The Examiner has supplied no credible motivation for the combination other than hindsight, stating it "would have been obvious . . . to incorporate the method for determining a frame of an image sequence into the method for managing data storage to detect the human and identify the frames with the clear faces." This is not a motivation explaining why one or ordinary skill at the time of the invention would have combined the teachings to arrive at the invention, but a mere recitation of the features of the claimed invention. There is no particular reason to combine a data indexing system based on content with a data storage system based on metadata.

In any event, even if one had been motivated to combine the teachings of the Ignatius and Guo references, the result would merely have been a system that selects an index frame based on content of video data (Guo), and stores the video data with the index frame, wherein the storage option is determined based on the metadata (Ignatius).

Even combining the references, it would not have been obvious to make storage decisions based on the content of the video data. Thus, even combining the teachings of the Ignatius and Guo references, one of ordinary skill would not have arrived at the present claim 47. Claims 51 and 55 include analogous claim elements to claim 47, and therefore are allowable for similar reasons.

Thus, schematically, the combination of the Guo and Ignatius references may be depicted the following two chains of functions:

video data content → index frame
⇓
external metadata → storage selection → data+index frame stored

Guo+Ignatius References

Likewise, even the combination of these references with the Glowny reference would not disclose every element of claim 47. That combination would yield the following schematic chains of functions:

video data content → index frame
⇓
voice/audio data → external metadata → storage selection → data+index frame stored

Guo+Ignatius+Glowny References

However, neither of these combinations are recited in claim 47. There is nothing in the combination of the Ignatius and Glowny and Guo references that teaches a storage selection based on content of the video data.

C. Rejection of claims 48, 52, and 56 over Ignatius/Glowny and Guo

Claims 48, 52, and 56 recite that the characteristic of the content on which the storage decision is based is human presence, and that analyzing the content of at least one frame comprises determining the presence of a human subject in the frame.

The Guo reference discloses selecting an index frame based on human presence. However, even if one had been motivated to combine the teachings of the Ignatius and Guo references, the result would merely have been a system that selects an index frame based on detection of human presence in the content of video data (Guo), and stores the video data with the index frame, wherein the storage option is determined based on the metadata (Ignatius).

Thus, even combining the references, it would not have been obvious to make storage decisions based on detection of human presence in the content of the video data. Thus, even combining the teachings of the Ignatius and Guo references, one of ordinary skill would not have arrived at the present claim 48. Claims 52 and 56 include analogous claim elements to claim 47, and therefore are allowable for similar reasons.

Thus, schematically, the combination of the Guo and Ignatius references may be depicted the following two chains of functions:

video data content → human presence → index frame
⇓
external metadata → storage selection → data+index frame stored

Guo+Ignatius References

Likewise, even the combination of these references with the Glowny reference would not disclose every element of claim 48. That combination would yield the following schematic chains of functions:

video data content → human presence → index frame
⇓
voice/audio data → external metadata → storage selection → data+index frame stored

Guo+Ignatius+Glowny References

However, this is not what is recited in claim 48. There is nothing in the combination of the Ignatius and Guo references that teaches a storage selection based on human presence detected in the content of the video data.

Accordingly, Applicants assert that the above rejections are improper, and that the Board reverse the rejections and allow all pending claims.

Respectfully submitted,

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VIII. Claims appendix

1. A method for managing data storage comprising:

receiving a stream of audio or video data related to a communication over a communication network;

automatically analyzing the content of the audio or video data to determine at least one characteristic of the audio or video content of the received stream;

generating based on said content analysis of the audio or video data metadata associated with the at least one characteristic;

selecting one of a plurality of storage options having different types of accessibility and/or capacity according to said generated metadata pertaining to said at least one characteristic and according to at least one rule; and

placing the data into said selected storage option.

2. The method of claim 1, wherein said placing said data further comprises compression of the data according to access needs or data importance.

3. The method of claim 1, wherein said data is data which needs formatting.

4. (Cancelled)

5. The method of claim 1, further comprising receiving computer telephony integration (CTI) metadata information associated with the communication; wherein selecting one of a plurality of storage options comprises selecting said storage option based on said CTI metadata, wherein the CTI metadata is received from a CTI server.

6. The method of claim 1 comprising:

receiving Computer Relationship Management (CRM) data associated with the communication from a CRM server.

7. (Cancelled)

8. The method of claim 1, wherein said selected storage option causes deletion of the data.

9. The method of claims 1, wherein said plurality of storage options include storage options having at least two different types of devices.

10. The method of claim 9, wherein at least one storage option includes an on-line storage device.

11. The method of claim 9, wherein at least one storage option includes an off-line storage device.

12. The method of claim 9, wherein at least one storage option includes a near-line storage device.

13-14. (Cancelled)

15. The method of claim 1, wherein the data is analyzed automatically according to a type of the data.

16. The method of claim 15, wherein the data includes a plurality of different types of data, and said plurality of different types of data is analyzed concurrently.

17. The method of claim 1, wherein the data is rendered into a common format before being analyzed automatically.

18. The method of claim 1, wherein the data is rendered into a common format after being analyzed automatically.

19. The method of claim 1, wherein said at least one rule includes a time interval for holding the data in said selected storage option.

20. The method of claim 19, wherein the data is migrated from a first selected storage option to a second selected storage option after said time interval has elapsed.

21. The method of claim 1, wherein said at least one rule is entered manually.

22. The method of claim 1, wherein said at least one rule is generated automatically.

23. The method of claim 22, wherein said at least one rule is generated automatically according to business data.

24. The method of claim 19, wherein said at least one rule includes an action to be performed on the data according to an event, wherein said event is related to said at least one characteristic of the data.

25. The method of claim 1, further comprising:

receiving data from an input source, wherein said data includes at least one of coded data, e-mail messages, e-mail attachments, chat messages, other types of messaging system messages, documents transmitted by facsimile and user interface data; and

automatically analyzing the content of the data received from the input source to determine at least one characteristic of the content of the data.

26. The method of claim 1, wherein feedback from an analysis of the content of the data is used for determining said at least one characteristic.

27. A system for data management according to content of the data, comprising:

an input source to deliver a stream of audio or video data related to a communication over a communication network;

an analysis module for analyzing the content of the data to determine at least one characteristic of the audio or video content of the delivered data stream and to generate based on said content analysis of the audio or video data metadata associated with the at least one characteristic;

a rule engine to compare at least a portion of the generated metadata to at least one rule and to select one of a plurality of storage options based on said comparison;

a storage manager for receiving a decision related to the selected storage option from said rule engine; and

a plurality of storage devices having different types of accessibility and/or capacity, wherein said storage manager stores the data in one of said plurality of storage devices according to said decision.

28. The system of claim 27, wherein said storage devices have different characteristics.

29. The system of claim 28, wherein said different characteristics include lifetime of stored data, and reliability to a user.

30-33. (Cancelled)

34. The system of claim 27, further comprising a client, wherein said rule engine determines if data is to be retrieved to said client.

35. The system of claim 27, further comprising:

a format analyzer to format the data prior to being delivered to the analysis module,

wherein said rule engine determines if the data is to be used as feedback to said format analyzer.

36. The system of claim 27, wherein an operation of said rule engine is manually triggered.

37. The system of claim 27, wherein an operation of said rule engine is automatically triggered.

38. The system of claim 37, wherein said rule engine is an initiator of a process for at least storing the data.

39. The system of claim 27 comprising:

a correlator for correlating data originated from more than one source of data, the data selected from the group containing computer metadata, telephony metadata, formatted data and telephony content data for determining at least one characteristic of the data to be stored.

40-42. (Cancelled)

43. A system for data management according to metadata, comprising:

an input source to deliver a stream of audio or video data related to a communication over a communication network;

an analysis module for analyzing the content of the data to determine at least one characteristic of the audio or video content of the delivered data stream and to generate based on said content analysis of the audio or video data metadata associated with the at least one characteristic;

a rule engine to compare at least a portion of the generated metadata to at least one rule and to select one of a plurality of storage options based on said comparison;

a storage manager for receiving a decision related to the selected storage option from said rule engine; and

a plurality of storage devices having different types of accessibility and/or capacity, wherein said storage manager stores the data in one of said plurality of storage devices according to said decision.

44. The method of claim 1, wherein the communication is a telephone call between a customer and a member of service center personnel.

45. The method of claim 1, wherein the communication is a voice communication and further comprising converting the audio data of the voice communication to textual data.

46. The method of claim 45, further comprising analyzing the textual data to categorize the voice communication.

47. The method of claim 1, wherein automatically analyzing the content of the video data comprises analyzing the content of at least one frame of said received stream of video data.

48. The method of claim 47, wherein said characteristic of the content comprises human presence, and wherein analyzing the content of at least one frame comprises determining the presence of a human subject in said at least one frame.

49. The method of claim 47, wherein said characteristic of the content comprises motion detection, and wherein analyzing the content of at least one frame comprises detecting motion in said at least one frame.

50. The method of claim 47, wherein said characteristic of the content comprises face recognition, and wherein analyzing the content of at least one frame comprises recognizing a face in said at least one frame.

51. The system of claim 27, wherein said analysis module is to analyze the content of the video data by analyzing the content of at least one frame of said delivered stream of video data.

52. The system of claim 51, wherein said characteristic of the content comprises human presence, and wherein said analysis module is to analyze the content of at least one frame by determining the presence of a human subject in said at least one frame.

53. The system of claim 51, wherein said characteristic of the content comprises motion detection, and wherein said analysis module is to analyze the content of at least one frame by detecting motion in said received stream of video data.

54. The system of claim 51, wherein said characteristic of the content comprises face recognition, and wherein said analysis module is to analyze the content of at least one frame by recognizing a face in said received stream of video data.

55. The system of claim 43, wherein said analysis module is to analyze the content of the video data by analyzing the content of at least one frame of said delivered stream of video data.

56. The system of claim 55, wherein said characteristic of the content comprises human presence, and wherein said analysis module is to analyze the content of at least one frame by determining the presence of a human subject in said at least one frame.

57. The system of claim 55, wherein said characteristic of the content comprises motion detection, and wherein said analysis module is to analyze the content of at least one frame by detecting motion in said received stream of video data.

58. The system of claim 55, wherein said characteristic of the content comprises face recognition, and wherein said analysis module is to analyze the content of at least one frame by recognizing a face in said received stream of video data.

59. The system of claim 27, further comprising a computer telephony integration (CTI) server to provide CTI metadata information associated with the communication, wherein said rule engine is further to compare at least a portion of the CTI metadata to at least one rule and to select one of a plurality of storage options based on said comparison.

60. The system of claim 43, further comprising a client relationship management (CRM) server to provide CRM metadata input associated with the communication, wherein said rule engine is further to compare at least a portion of the the CRM metadata to at least one rule and to select one of a plurality of storage options based on said comparison.

IX. Evidence appendix

None.

X. Related proceedings appendix

None.